this phthalonitrile may be made by reacting an aromatic diol with 4-nitrophthalonitrile. x is from 1 to 10, corresponding to a n of 0 to 9.

The reference is not enabling for all values of x. "Where a process for making the compound is not developed until after the date of invention, the mere naming of a compound in a reference, without more, cannot constitute a description of the compound." MPEP 2121.02, citing *In re Hoeksema*, 158 U.S.P.Q 596, 399 F.2d 269 (C.C.P.A 1968). The reference merely states that the aromatic diols are easily made by an Ullman ether synthesis, and cites to Williams, et al. and Hammann et al. (both attached) for further information (col. 3, line 68-col. 4, line 8). The examples in Keller only disclose the use of compounds having x = 1 and 2 (n = 0 and 1), and no syntheses of aromatic diols are disclosed. Williams and Hammann do not disclose any aromatic diols at all, only short chains of aryl groups without the hydroxide groups needed to form the phthalonitrile. Since the instant claim requires that n be at least 2, none of the claimed compounds are enabled by Keller.

Also attached is the declaration of Teddy M. Keller stating his expert opinion that the Ullmann ether synthesis cannot be used to make oligomeric or polymeric aryl ethers in high yield and high molecular weight.

Claims 15-21 depend from and contain all the limitations of claim 14 and are asserted to distinguish from the reference in the same manner as claim 14. Further, as to claim 16, the specific values of n are not disclosed in the reference.

As to claims 20 and 21, these claims recite that the polymerization mixture further comprises other phthalonitriles. Keller does not disclose copolymerizing the disclosed phthalonitrile with other phthalonitriles.

Claim 38 is to a method of making a thermoset comprising curing a mixture comprising the phthalonitrile recited in claim 14.

As explained above, the recited phthalonitrile is not enabled by the reference. Claims 39-46 depend from and contain all the limitations of claim 38 and are asserted to distinguish from the reference in the same manner as claim 14.

Claims 47-56 have been rejected under 35 U.S.C § 103(a) as allegedly unpatentable over Keller et al. (US 5,352,760) or Keller et al. (US 5,464,926).

Claim 47 is to a process of preparing a thermoset comprising reacting an excess of dihydroxyaromatic with a dihaloaromatic in the presence of a copper compound and a base, reacting a 3- or 4-nitrophthalonitrile with the product of the previous step, and curing a mixture comprising the product of the previous step.

Keller discloses reacting a dihydroxyaromatic with a dihaloaromatic in the presence of a base, reacting a 3- or 4-nitrophthalonitrile with the product of the previous step, and curing a mixture comprising the product of the previous step.

In order to make a *prima facie* case of obviousness, each claim limitation must be disclosed in the references. None of the references discloses the limitation in claim 47 that the reaction is performed in the presence of a copper compound. The Examiner cited to col. 6, line 48 of '760 as disclosing the copper compound. However, this copper compound is a curing agent in the final step of converting the phthalonitrile to a thermoset (col. 6, lines 34-36). The copper is not present when reacting the dihydroxyaromatic with a dihaloaromatic. The significance of the copper in the present invention is that it allows for the reaction without an activating group in the reactants. In Keller, the dihaloaromatic contains an R group that is an electron-withdrawing group. The reaction disclosed in Keller would not occur without the electron-withdrawing group. As all the claim limitations of claim 47 are not disclosed in the references, a *prima facie* case of obviousness has not been made.

Claims 48-56 depend from and contain all the limitations of claim 47 and are asserted to distinguish from the references in the same manner as claim 47. Further, as to claim 16, the specific values of n are not disclosed in the reference

In view of the foregoing, it is submitted that the application is now in condition for allowance.

In the event that a fee is required, please charge the fee to Deposit Account No. 50-0281,

and in the event that there is a credit due, please credit Deposit Account No. 50-0281.

Respectfully submitted,

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